DWR Climate News Digest

February 2015

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The information provided herein is a selected compilation of recent popular news articles, publications, and other information relevant to climate change and water management. The links provided herein are intended to provide educational and thought-provoking material for water managers and water users.

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TOPICS [Find older items in the Climate News Archive]

Reports

Climate Intervention: Carbon Dioxide Removal and Reliable Sequestration

[National Academy of Sciences – February 2015]

Climate Intervention: Reflecting Sunlight to Cool Earth

[National Academy of Sciences – February 2015]

Published Literature

The magnitude and spatial patterns of historical and future hydrologic change in California's watersheds [Ecosphere Volume 6, Issue 2 – February 2015] (The authors "assessed change for 5135 watersheds over a 60-year period and compared it to 90-year future projections. Watershed change was analyzed for climatic water deficit, April 1st snowpack, recharge, and runoff. Watersheds were ranked by change for the historical and two future scenarios")

Grants and Other Funding Opportunities

Interior Department to announce \$8 million for tribal climate change adaptation and planning projects [Bureau of Indian Affairs – February 17, 2015]

Sea-level Rise and other Ocean Impacts

<u>Sea level rise and climate change: 'Very unusual' survey along east coast could signal future</u>
<u>coastal flooding</u> [International Business Times – February 24, 2015]

Satellite images reveal ocean acidification from space [Science Daily – February 16, 2015]

<u>Seafloor volcano pulses may alter climate: Strikingly regular patterns, from weeks to eons</u>
[Science Daily – February 5, 2015]

How will ocean acidification impact marine life? [Science Daily – February 3, 2015]

Agriculture/Food Production

Climate change may dramatically reduce wheat production

[Economic Times – February 20, 2015]

Agricultural movement tackles challenges of a warming world

[Yale Environment 360 – February 5, 2015] (farmers are 'embracing what has come to be known as 'climate-smart agriculture', which are techniques that protect farmers from the effects of global warming and improve crop yields, while also limiting greenhouse gas emissions)

General Water Management

Study reveals climate change impacts on irrigation demand and reservoir evaporation in the West [US Bureau of Reclamation – February 6, 2015]

Extreme Weather Events

Warming pushes Western U.S. toward driest period in 1,000 years: Unprecedented risk of drought in 21st century [Science Daily – February 12, 2015]

<u>2013 record heatwave 'virtually impossible' without climate change, Climate Council of</u>
<u>Australia report says [ABC Australia – February 7, 2015]</u>

Global thunderstorm 'map' reveals how storms change with climate

[Science World Report – February 9, 2015]

Unprecedented 21st century drought risk in the American Southwest and Central Plains

[American Association for the Advancement of Science – February 1, 2015] ("...future drought risk will likely exceed even the driest centuries of the Medieval Climate Anomaly in both moderate and high future emissions scenarios, leading to unprecedented drought conditions during the last millennium")

Federal construction projects must plan for flood risks from climate change

[New York Times – January 30, 2015]

Global warming could make blizzards worse [Washington Post – January 26, 2015]

Human Health Impacts

Climate change and human trafficking: A deadly combination

[The Diplomat – February 25, 2015]

'Numerous effects' of climate change on tropical diseases

[Medical News Today – February 16, 2015]

<u>Climate change pushes India's poorest children into slavery – Satyarthi</u>

[Reuters – February 5, 2015]

Tribal Impacts & Traditional Ecological Knowledge

Wisdom of the Elders in Alaksa talk climate change, culture, resilience

[Indian Country Today – February 22, 2015]

[website] Tribes and Climate Change Fact Sheets

[Northern Arizona University – February 2015] (Downloadable 2-page fact sheets developed by the Institute for Tribal Environmental Professionals (ITEP) focus on climate change impacts, adaptation strategies, and other relevant topics)

Wildlife and Ecosystem Impacts

In a warmer world, ticks that spread disease are arriving earlier, expanding their ranges

[Science Daily – February 18, 2015]

A 23-year experiment finds surprising global warming impacts already underway

[Skeptical Science – February 9, 2015]

Greenhouse Gas Mitigation

BP's two-word fix for global climate change [Christian Science Monitor – February 17, 2015]

<u>Climate change efforts backfire in Brazil's steel industry</u> [Phys Org – February 9, 2015]

Electricity from biomass with carbon capture could make western US carbon-negative

[Science Daily – February 9, 2015]

<u>Preventing greenhouse gas from entering the atmosphere</u> [Science Daily – February 5, 2015]

("A team of researchers has developed a novel class of materials that enable a safer, cheaper, and more energy-efficient process for removing greenhouse gas from power-plant emissions")

Climate Adaptation

Climate adaptation experts help prepare for disaster [Climate Central February 28, 2015]

Artificial glacier could help Ladakh villagers adapt to climate change

[The Guardian – February 24, 2015]

International Planning

2015 pivotal for finalizing universal climate change agreement, Ban tells Member States

[UN News Centre – February 23, 2015]

INDCs: Bridging the gap between national and international climate action

[The Energy Collective – February 23, 2015]

UK party leaders unite on climate change [New Scientist – February 17, 2015]

<u>Climate change complicates efforts to end poverty</u> [World Bank – February 6, 2015]

<u>China to create carbon market and cap emissions</u> [Think Progress – February 4, 2015]

Climate Change Modeling

Global warming slowdown: No systematic errors in climate models, comprehensive statistical analysis reveals [Science Daily – February 2, 2015]

Communicating Climate Change

Researchers think they've found a 'gateway belief' that leads to greater science acceptance

[Washington Post – February 26, 2015]

Climate change booklet aims to dispel confusion, misinformation

[ABC News Australia – February 15, 2015] (The Australian Academy of Sciences has released a "clear and balanced account of climate change and its impact on Australia" titled <u>Science of Climate Change: Questions and Answers</u>)

What to call a doubter of climate change? [New York Times – February 12, 2015]

What should we tell the kids about climate change? [Bloomberg- February 5, 2015]

BLOGS/Commentary

- Stuart Shapiro on "What can tobacco teach us about climate change policy?"

 [The Hill February 16, 2015]
- USA Today Editorial Board on "<u>Geoengineering won't solve climate change: Our view</u>" [USA Today February 15, 2015]
- Brian Deese on "<u>7 out of 10 doctors: Climate change is already harming patients' health</u>" [White House blog February 26, 2015]
- Andrew Revkin on "<u>A scientist's view of 'planetary boundaries' from the ground up in rural</u>
 <u>India</u>" [New York Times January 30, 2015]

Additional Items of Interest

NASA satellites start tracking down the sources of climate change

[NBC news- February 26, 2015]

Senator refutes climate change by throwing snowball in Capitol

[New York – February 26, 2015] (Senator Jim Inhofe (R-Oklahoma), is chair of the Senate Committee on Environment and Public Works and believes climate change is a 'hoax')

Climate change may eliminate world famous Santa Cruz surf, USGS study finds

[CBS SF Bay – February 24, 2015]

New York City could see 6-foot sea rise, tripling of heat waves by 2100

[Scientific American- February 19, 2015]

<u>Citigroup Inc. unveils \$100 billion climate change fund to back clean energy and resiliency</u>
projects [International Business Times – February 18, 2015]

Climate change could decimate the American ski industry [Vice News – February 2015]

Will the carbon bubble be the next financial crisis? [Forbes – February 13, 2015]

Carbon release from ocean helped end the Ice Age [Science Daily – February 11, 2015]

White House: Climate change threatens more Americans than terrorism

[National Journal – February 10, 2015]

What the massive snowfall in Boston tells us about global warming

[Washington Post – February 10, 2015]

Anthropologists issue statement on climate change [Inside Higher Ed – February 9, 2015]

Climate change puts Alaska's sled dog races on thin ice [NPR – February 7, 2015]

<u>Meeting two degree climate target means 80 percent of the world's coal is unburnable, study</u>
<u>says</u> [Skeptical Science – February 6, 2015]

Evidence from warm past confirms recent IPCC estimates of climate sensitivity

[Science Daily – February 4, 2015]

EPA Keystone review links oil sands to carbon emission jump [Bloomberg- February 3, 2015]

<u>Climate change is making the land in Iceland rise</u> [Time – February 2, 2015]

Federal construction projects must plan for flood risks from climate change
[New York Times – January 30, 2015]

American Anthropological Association (AAA) Statement on Humanity and Climate Change

[AAA – January 29, 2015] ("As the discipline most clearly devoted to the human condition over time and space, anthropology offers important insights that can help create workable solutions to mitigate the impacts of climate change")

Images to Ponder



Image credit: http://www.bloomberg.com/news/articles/2015-02-03/epa-keystone-review-links-oil-sands-to-higher-carbon-emissions

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